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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
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10/645,322

08/21/2003

Eugene A. Gregerson

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05/15/2007

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EXAMINER

SONG, HOON K

ART UNIT

PAPER NUMBER

2882

MAIL DATE

DELIVERY MODE

05/15/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|-----------------|------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/645,322 | GREGERSON ET AL. | |
| | Examiner | Art Unit | |
| | Hoon Song | 2882 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 20-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20-24, 27-34 and 39-47 is/are allowed.
- 6) ☒ Claim(s) 1-18, 25, 26 and 35-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/2/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-18, 25 and 35 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5, 9-18, 49-50 of copending Application No. 11/262299. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims are anticipated by the claims of the patent.

Claims 26 and 36-38 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 35 of copending Application No. 11/262299. Although the conflicting claims are not identical, they are

Art Unit: 2882

not patentably distinct from each other because the modification is within ordinary skill in the art.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Allowable Subject Matter

The indicated allowability of claims 1-18, 25-26 and 35-38 is withdrawn in view of the newly discovered reference(s) to the copending Application No. 11/262299.

Rejections based on the newly cited reference(s) above.

Claims 20-24, 27-34 and 39-47 are allowed over prior art.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 20-24, the prior art fails to teach an imaging apparatus having a gantry positioning apparatus that secures a gantry to a support structure in a cantilevered manner, the positioning apparatus operable to rotate the gantry about a first axis, and translate the gantry in the directions of a second axis and a third axis, where the first, second, and third axes are mutually orthogonal and a control system that actuates the gantry positioning apparatus to rotate about the first axis and translate in the directions of the second and third axes so as to approximate a rotation of the gantry about a focal spot of the radiation source as claimed in independent claim 20.

Regarding claims 27-34, the prior art fails to teach an imaging apparatus having a gantry having an interior diameter; a gantry positioning apparatus that secures the gantry to the support structure in a cantilevered manner, the positioning apparatus

operable to translate the gantry in two perpendicular directions; and a control system that actuates the gantry positioning apparatus to translate the gantry in coordination with the rotation of a source and detector, such that, for a rotational position of the source and detector, the detector is tangent to a virtual circle centered on the and containing the object being imaged, where the virtual circle has a diameter that is less than the interior diameter of the gantry as claimed in independent claim 27.

Regarding claims 39-42, the prior art fails to teach a method of obtaining a large field-of-view in an imaging system by rotating a gantry about an axis, the gantry comprising a radiation source and a detector operable to obtain image data of an object within the gantry, translating the gantry a first distance in a first direction; and translating the gantry a second distance in a second direction so as to approximate a rotation of the gantry about a focal spot of the x-ray source; obtaining image data of an object while the gantry approximates a rotation about; the focal spot of the x-ray source; and combining the image data to produce an image with a wide field-of-view as claimed in independent claim 39.

Regarding claims 43-47, the prior art fails to teach a method of increasing the field-of-view of an imaging system by rotating a radiation source and a detector in the interior of the gantry to a first rotational position, the gantry containing an object to be imaged; translating the gantry to a first translational position such that the detector is tangent to a virtual circle centered on and containing the object to be imaged, where the virtual circle has a diameter that is less than an interior diameter of the gantry; and obtaining an image of the object as claimed in independent claim 43.

Response to Arguments

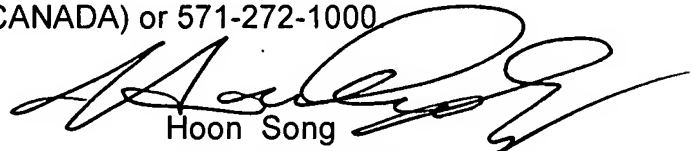
Applicant's arguments with respect to claims 1-18, 25-26 and 35-38 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoon Song whose telephone number is (571) 272-2494. The examiner can normally be reached on 9:30 AM - 7 PM, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Glick can be reached on (571) 272 - 2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Hoon Song
Primary Examiner
Art Unit 2882

HKS